Amendments

In the Claims:

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Claim 1 (Currently amended): A method of screening for ~~the identification of a~~ compounds which affects mRNA stability, comprising the steps of:

(a) providing ~~contacting a test compound with~~ a DNA expression system which, in the absence of the test compound, is capable of expressing a protein having a detectable signal, wherein mRNA which codes for the protein and which is transcribed from the expression system comprises at least one copy of a mRNA instability sequence;

(b) contacting the DNA expression system with at least one test compound;

(c) ~~(b)~~ measuring the detectable signal in the presence of the test compound; and

(d) ~~(c)~~ comparing the measured detectable signal ~~magnitude of the signal detected~~ with a control;~~,~~

wherein ~~when the magnitude of the~~ a decrease in the measured detectable signal ~~detected is decreased relative~~ compared to the control ~~, said test compound destabilizes mRNA.~~ indicates a compound that decreases mRNA stability and an increase in the measured detectable signal compared to the control indicates a compound that increases mRNA stability.

Claim 2 (Cancelled).

Claim 3 (Currently amended): A method for comparing the extent of ~~comparison of compounds which induce~~ mRNA degradation induced by two or more compounds, comprising the steps of:

(a) providing a DNA expression system, ~~separately contacting the compounds with a DNA expression system~~ which in the absence of a test ~~the~~ compounds is capable of expressing a protein having a detectable signal, wherein mRNA which codes for the protein and which is transcribed from the expression

system, comprises at least one copy of a mRNA instability sequence;

(b) separately contacting the DNA expression system with two or more test compounds;

(c) ~~(b)~~ measuring the detectable signal in the presence of each test compound; and

(d) ~~(c)~~ comparing the measured detectable signals ~~obtained to determine the mRNA instability promoting activity of the compounds.~~; wherein the compound whose presence results in a lower measured detectable signal has induced a greater extent of mRNA degradation.

Claim 4 (Currently amended): A reporter gene DNA expression system comprising: 1) ~~a gene coding for~~ an expression cassette consisting of one or more genes encoding ~~of~~ a protein having a detectable signal, with associated ~~wherein the gene comprises DNA coding for the amino acid sequence of the protein operably linked to~~ 5' and 3' UTR sequences ~~, wherein said 5' and 3' UTR sequences comprise~~ comprising appropriate expression control elements; and 2) ~~DNA, wherein the DNA codes for to at least one copy of a mRNA~~ an instability ~~sequence.~~ region consisting of the whole or a substantial part of the 3'UTR of a gene sequence which confers instability to a mRNA, wherein said instability region is inserted into the 3'UTR of said expression cassette.

Claim 5 (Previously amended): A stably transfected cell line comprising the reporter gene DNA expression system of claim 4.

Claim 6 (Currently amended): An assay system for screening for ~~the identification of~~ compounds which destabilise mRNA comprising:

(a) a ~~the~~ reporter gene ~~DNA~~ expression system comprising a gene coding for expression of a protein having a detectable signal, wherein the gene comprises DNA coding for the amino acid sequence of said protein together with associated 5' and 3' UTR sequences comprising appropriate expression control elements and DNA corresponding to at least one copy of a mRNA instability sequence; and

(b) ~~of claim 4, and~~ a control DNA expression system comprising ~~which~~

~~comprises a~~ said gene coding for expression of ~~the~~ a protein having ~~the~~ a detectable signal, but wherein said ~~the~~ gene ~~comprises DNA coding for the amino acid sequence of the protein operably linked to 5' and 3' UTR sequences comprising appropriate expression control elements but~~ lacks ~~lacking~~ any functional mRNA instability sequences.

Claim 7 (Currently amended): The ~~An~~ assay system ~~comprising a stably transfected cell line~~ according to claim 6 ~~5~~, ~~and a stably transfected cell line comprising a control DNA expression system which comprises a gene coding for expression of the protein having the detectable signal,~~ wherein said reporter gene expression system and said control DNA expression system are provided in a stably transfected cell line. ~~the gene comprises DNA coding for the amino acid sequence of the protein operably linked to 5' and 3' UTR sequences comprising appropriate expression control elements but lacking any functional mRNA instability sequence.~~

Claim 8 (Currently amended): A stably transfected cell line comprising:

(a) a ~~the~~ reporter gene ~~DNA~~ expression system ~~of claim 4 and~~ comprising a gene coding for expression of a protein having a detectable signal, wherein the gene comprises DNA coding for the amino acid sequence of said protein together with associated 5' and 3' UTR sequences comprising appropriate expression control elements and DNA corresponding to at least one copy of a mRNA instability sequence; and

(b) a control ~~gene~~ DNA expression system ~~, said control gene DNA expression system~~ comprising a gene coding for expression of a second protein having a detectable signal, wherein the gene ~~which is different than the protein of the reporter gene DNA expression system and wherein said control gene DNA expression system~~ comprises DNA coding for the amino acid sequence of the protein together with associated ~~operably linked to~~ 5' and 3' UTR sequences comprising appropriate expression control elements, but lacking any functional mRNA instability sequences.

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Claim 9 (Currently amended): An assay system for screening for compounds that destabilize mRNA comprising a the stably transfected cell line according to claim 8.

Claim 10 (Previously amended): A compound which destabilises mRNA identified by a method according to any one of claims 1-3.

Claim 11 (Previously amended): A method of treating or preventing a disease or medical condition in a subject, wherein the disease or medical condition is associated with inappropriate mRNA stabilisation and/or accumulation and undesirable protein expression, comprising administering to the subject the compound of claim 10.

Claim 12 (Previously amended): A compound which destabilises mRNA identified by use of the DNA expression system of claim 4.

Claim 13 (Previously amended): A compound which destabilises mRNA identified by the cell line of claim 5 or 8.

Claim 14 (Previously amended): A compound which destabilises mRNA identified by the assay system of claim 6, 7 or 9.

Claim 15 (New): The method according to claim 1, wherein said compounds are being screened for inducing mRNA degradation, and wherein a decrease in the measured detectable signal compared to said control indicates a compound that induces mRNA degradation.

Claim 16 (New): A reporter gene DNA expression system as in claim 4, wherein said instability region is derived from genes coding for cytokines, chemokines, nuclear transcription factors, protooncogenes, immediate early genes, cell cycle controlling genes, oxygenases, genes involved in and controlling of apoptosis.

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Claim 17 (New): A reporter gene DNA expression system as in claim 4, wherein said instability region is derived from genes coding for GM-CSF, *c-fos*, *c-myc*, *c-jun*, *krox*-20, *nur*-77, *zif*268, bcl-2, β-IFN, uPA, IL-1, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-13, TNF-α, MCP-1, syn1, β2-AR, E-selectin, VCAM-1, ICAM-1, Gro-α, Gro-β, MMP-1, MMP-2, collagenases, P-glycoproteins (MDR), MRPs, Pγh1 (pf mdr), COXII, and MIP-2α.